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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,993	01/15/2002	Christopher B. Marshall	GB 010202	6336

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EXAMINER

MOORE, JAMES K

ART UNIT PAPER NUMBER

2686

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,993

Applicant(s)

MARSHALL ET AL.

Examiner

James K Moore

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 9, 10, 12, 13, 16 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Ziegler (U.S. Patent No. 6,711,151).

Regarding claim 1, Ziegler discloses a communications system comprising a beacon device (master device) capable of wireless message transmission and a portable device (slave device) capable of receiving the message transmission. See col. 1, lines 36-45. The beacon broadcasts messages using a first protocol which provides a series of inquiry messages. Different inquiry message in the series are provided on different carrier frequencies. See col. 2, lines 18-33. The beacon also broadcasts additional data (a page) using a spread spectrum transmission technique (frequency hopping). See col. 2, lines 34-49.

Regarding claim 9, Ziegler discloses all of the limitations of claim 1, and also discloses that the additional data enables a portable device and the beacon device to commence wirelessly exchanging data using the first protocol. See col. 2, lines 34-49.

Regarding claim 10, Ziegler discloses all of the limitations of claim 9, and also discloses that the additional data enables a portable device and the beacon device to commence wirelessly exchanging data using the first protocol without use of the inquiry messages. See col. 2, lines 34-49.

Regarding claim 12, Ziegler discloses all of the limitations of claim 1, and also discloses that the first protocol comprises Bluetooth messaging. See col. 1, lines 36-45.

Regarding claim 13, Ziegler discloses all of the limitations of claim 12, and also discloses that the beacon broadcasts a series of inquiry messages on a predetermined clocked succession of frequencies and clock information for the beacon is included in additional data broadcasted by the beacon using a spread spectrum transmission technique. See col. 2, lines 17-33 and col. 2, line 62 – col. 3, line 10.

Regarding claim 16, Ziegler discloses a beacon device (master device) capable of wireless message transmission and for use in a communications system comprising the beacon device and a portable device (slave device) capable of receiving the message transmission. See col. 1, lines 36-45. The beacon broadcasts a series of inquiry messages arranged according to a first protocol, and additional data (e.g., a page) using a spread spectrum transmission technique (frequency hopping). See col. 2, lines 18-49.

Regarding claim 19, Ziegler discloses all of the limitations of claim 16, and also discloses that the first protocol comprises Bluetooth messaging. See col. 1, lines 36-45.

Regarding claim 20, Ziegler discloses a method of communicating between a beacon device (master device) and a portable communications device (slave device).

See col. 1, lines 36-45. The method comprises transmitting a series of inquiry messages arranged according to a first protocol. Different inquiry messages in the series are provided on different carrier frequencies. See col. 2, lines 18-33. The method also comprises broadcasting additional data (e.g., a page) using a spread spectrum transmission technique (frequency hopping). See col. 2, lines 34-49.

3. Claims 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Vaisanen et al. (U.S. Patent No. 6,560,443).

Regarding claim 20, Vaisanen discloses a method of communicating between a beacon device (access point) and a portable communications device (a multi-transceiver mobile terminal). Since the portable communications device may operate in a Bluetooth communications system, it is inherent that a series of inquiry messages are transmitted arranged according to a first protocol (Bluetooth), and that different inquiry messages in the series are provided on different carrier frequencies. See col. 4, lines 43-62. The method also comprises broadcasting additional data using a spread spectrum transmission technique (DSSS). The portable device receives the additional data and determines therefrom whether or not to communicate with the beacon device using the first protocol. See col. 6, line 36 – col. 7, line 22.

Regarding claim 21, Vaisanen discloses all of the limitations of claim 20, and also discloses that the additional data enables the portable device to establish communication with the beacon device without use of the inquiry messages. See col. 4, lines 43-62.

Regarding claim 22, Vaisanen discloses all of the limitations of claim 20, and also discloses that the first protocol comprises Bluetooth messaging. See col. 4, lines 43-62.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-7, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziegler in view of Comer (U.S. Patent No. 6,154,648).

Regarding claims 2 and 17, Ziegler discloses all of the limitations of claims 1 and 16, and the inquiry messages are inherently each in the form of a plurality of predetermined data fields since they are inquiry messages conforming to the Bluetooth specification. Ziegler does not disclose that the beacon adds to each inquiry message prior to transmission an additional data field for the additional data. However, Comer teaches the concept of adding additional data fields to messages for the purpose of transmitting additional data. See col. 20, lines 35-51. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ziegler with Comer, such that the beacon adds to each inquiry message prior to transmission an additional data field for the additional data, for the purpose of transmitting additional data.

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Regarding claim 3, Ziegler in view of Comer teaches all of the limitations of claim 2, and Comer also discloses that the additional data field is added at the end of a message. See Figure 2a.

Regarding claims 4 and 18, Ziegler in view of Comer teaches all of the limitations of claims 2 and 17, and Comer also discloses that an indication (a flag bit 57) is included in one of the predetermined data fields to denote the presence of the additional data field. See col. 20, lines 45-51.

Regarding claim 5, Ziegler in view of Comer teaches all of the limitations of claim 2, and the feature of the additional data field carrying at least 64 bits of data is merely a design choice.

Regarding claim 6, Ziegler in view of Comer teaches all of the limitations of claim 2, and Ziegler discloses that the message, including the additional data, is spread using a sequence. See col. 2, lines 18-33.

Regarding claim 7, Ziegler in view of Comer teaches all of the limitations of claim 6, and the feature of the data being 91 kb/s spread at a rate of 1 Mb/s with an 11 bit code is merely a design choice.

6. Claims 8, 11, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziegler in view of Sugar et al. (U.S. Patent Application Pub. No. 2002/0061031).

Regarding claim 8, Ziegler discloses all of the limitations of claim 1, but does not disclose that the spread spectrum technique comprises direct sequence spread

spectrum transmission. However, Sugar discloses a wireless communication system in which a beacon (MPD 12) operates according to both Bluetooth and direct sequence 802.11, thereby allowing communication with devices which use either of the protocols. See page 2, paragraph 0038; page 3, paragraph 0039; and page 6, paragraphs 0066 and 0067. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ziegler with Sugar, such that the beacon broadcasts additional data using direct sequence spread spectrum, in order to allow the beacon to extend its communication to devices using the direct sequence spread spectrum protocol.

Regarding claim 11, Ziegler discloses all of the limitations of claim 1.

Furthermore, the combination of Ziegler and Sugar, as set forth above in claim 8, would result in the system comprising a portable device of a first type (a dual mode Bluetooth and 802.11 capable device) and a portable device of a second type (a Bluetooth-only device), where the portable device of the first type would receive the inquiry messages and the additional data, and the portable device of the second type would receive the inquiry messages but not the additional data.

Regarding claim 14, Ziegler discloses all of the limitations of claim 1, but does not disclose a mobile communication device for use in the system, where the device comprises a receiver capable of receiving the short-range inquiry messages and the additional data, and the device comprises means for reading the additional data and presenting it to a user. However, Sugar teaches that mobile communication devices comprising displays such as cell phones and palm computers often operate in a Bluetooth system. See page 1, paragraphs 0003 and 0004. It would have been

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obvious to one of ordinary skill in the art at the time of the invention to modify Ziegler with Sugar, such that Ziegler's invention is used in a mobile communication environment and the slave devices are mobile communication devices which comprise means for presenting additional data broadcast by the beacon to a user, in order to provide the advantages of Ziegler's invention (i.e., frequency hopping synchronization) to the mobile communications environment.

Regarding claim 15, Ziegler in view of Sugar teaches all of the limitations of claim 14, and Ziegler also discloses that the receiver receives messages according to Bluetooth protocols. See col. 1, lines 36-45.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Moore, whose telephone number is (703) 308-6042. The examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached at (703) 305-4379.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ken Moore

8/3/04

JKM

[Signature]
8/7/04
LESTER G. KINCAID
PRIMARY EXAMINER